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THE NICARAGUA CANAL.

THE construction of a ship-canal across the isthmus which connects North and South America has attracted the attention of governments, engineers, and capitalists, in this country and in Europe, for considerably more than half a century. The allusions to the possibility and importance of such a work made by travelers and scientists, almost from the time when America was discovered down to the day when practical investigations were commenced by the government of the United States, had left a deep impression on the public mind; and the rapid growth of the American Republic in population and wealth, the increasing commerce between the Atlantic and Pacific oceans, the long, tedious, and dangerous passage from shore to shore around Cape Horn, all tended to strengthen this impression, and to establish the conviction that the interest of the American people in the commerce of the world required a water communication, from sea to sea, across the Isthmus of Darien. It is now more than fifty years since this project first received serious consideration on this continent. Under the administration of Mr. Adams, in 1825, correspondence and negotiations commenced, which have continued up to the present time. Turning from one government to another for aid in carrying out the scheme, the people of Central America soon arrived at the conclusion that they must look to the United States for the completion of the work, and that to them especially, on account of location and institutions, belonged

the right to unite with that state through whose territory the canal might run, in its construction and control. In 1830, in 1831, in 1835, in 1837, in 1839, in 1844, in 1846, in 1849, in 1858, plans were proposed to the governments of the United States, England, and France for the commencement of the work, until the breaking out of the civil war in this country presented a more important topic for consideration, and overshadowed all questions relating solely to industrial development and international commerce, and ended in results which have given new and vast interest and importance to every enterprise which can add power to the republic and advance the prosperity of its people. Stepping at once into the front rank among the powerful nations of the earth, the United States has entered, as it were spontaneously, upon a career of development almost unparalleled in the history of the world. By the growth of States along the Pacific coast, by the erection of trans-continental lines of railway, by the occupation of new lands, by the opening of new mines, by increasing mechanical and manufacturing enterprises, by the introduction of her products on an amazing scale into the commerce of the world, by her devotion to a system of finance which requires incessant industry among all classes of the people, and the cheapest possible means of intercourse and transportation, the United States has given new and deeper importance to every method by which industry can be advanced and commerce can be promoted. It is during this short period that the value of even the most expensive highways has been proved, that mountain ranges have been penetrated by costly tunnels, and distant seas have been connected by costly canals, and it has been demonstrated that the most extravagant investments in works of this description are remunerative under the vast commercial ebb and flow which characterizes the present age. Of the necessity for, and advantage of, intercommunication of every description, therefore, there seems to be no longer a doubt; and it is with this conviction that the United States government is called on to consider now once more the value and importance of an interoceanic canal on this continent.

Of the advantages of this canal to our industry and commerce it becomes us, therefore, first to speak. In this connection it should not be forgotten that the states of North and South America lying along the Pacific furnish in large abundance those commodities which are constantly supplied with

markets in almost every country of Europe. Of guano and niter the trade is immense. From the ports of Chili nearly 400,000 tons of freight are shipped eastward annually. More than 1,000,000 tons of grain are shipped each year from the Pacific States and Territories. There is no doubt that more than 4,000,000 tons of merchandise find their way from these regions to the East, and require water communication in order that they may be shipped economically and profitably; and this is merchandise to which railway transportation across the continent is wholly inapplicable. The great wheat crops of California and Oregon, for instance, find their way to Liverpool around Cape Horn at the freight-rate of fifty cents per bushel—a rate which would not carry it by rail half-way to Boston or New York or Philadelphia, to be there shipped to its European destination. In addition to the commerce of the North and South American ports referred to, there may be estimated also the advantages which would accrue to the trade of Australia and the remote East Indies bound to Great Britain, and which would undoubtedly add 1,000,000 tons to the freight seeking a passage through the canal. When we consider the time and distance saved by the canal for this vast amount of merchandise by avoiding the passage around Cape Horn, and the importance in these days of rapid transit, and of a ready approach to a destined market, we can readily understand the value of the enterprise to producer and shipper and consumer alike. Leaving out of consideration the dangers and delays of the Cape, we should not forget that by the canal now proposed the distance from New York to Hong Kong is shortened 5,870 miles; from New York to Yokohama, 6,800 miles; from New York to San Francisco, 8,600 miles; from New York to Honolulu, 6,980 miles; from Liverpool to San Francisco, 6,065 miles; and from Liverpool to Callao, 4,374 miles; and we need no longer question the value of an interoceanic canal on the Western continent, as we have long since abandoned all doubt of the value of the Suez Canal to the commerce of the nations of the East. To Europeans the benefits and advantages of the proposed canal are great;—to the Americans they are incalculable. Forming, as a canal properly organized and constructed would, a part of the coast-line of the United States, it would increase our commercial facilities beyond calculation. Interfering in no way with the interests of those lines of railway which connect the Atlantic States with the Pacific, but tending

rather to stimulate and increase the activity out of which their traffic grows, it would cheapen all staple transportation and add vastly to the ease and economy of emigration from the East to the farms and mines of the Pacific slope. That a canal will be of great benefit to the commerce of the United States, also, there can be no doubt. Meeting as we do a formidable competition in the carrying-trade to foreign ports, we find in our coastwise navigation an opportunity for a profitable use of American bottoms, protected by our own commercial laws. A continuous coast-line, including our eastern and western shores, therefore promises an increase of this navigation sufficient of itself to make a canal a matter of the utmost importance to our people.

In view of these advantages, the question naturally arises with regard to the most feasible route for the canal, both as regards economy of construction and convenience in use. On this point it would hardly seem as if there were room for controversy. The difficulties which surround the Panama scheme have been so frequently and so forcibly set forth, that they need not be elaborately repeated here. The floods of this region, caused by sudden and immense rain-fall, have attracted the attention of the most careless traveler, and have perplexed and confounded the scientific engineer in his attempts to provide some method by which to overcome the difficulties which they create. The impassable and unhealthy swamps lying along this route have always been considered unfit for a water-course, and so destructive to human life that labor and death seemed to have joined hands there. The necessity for long and expensive tunnels or open cuts, and for a safe viaduct, has added vastly to the expense of the route when estimated, and to the obstacles to be overcome by engineering. The most careful surveys have always developed a discouraging want of material for construction. The addition of five hundred miles to the distance between New York and the ports on the west coast of the United States by the Panama route over that of any other feasible route proposed, and the long and tedious calms which prevail in Panama Bay, have never failed to create opposition to this route in the mind of the navigator. The enormous cost of the Panama Canal, moreover, has never been denied. Considering the engineering difficulties attending the diversion of the Chagres River, and the necessary construction of an artificial lake to hold its floods, together with the tunneling, or open cuts, to which allusion has already been

made, the cost of this canal cannot be less than \$400,000,000, and would probably be much more—including the payment to the Panama Railroad for its concession. No American capitalist would be likely to look for dividends on an investment like this.

Turning from the Panama route, therefore, as one which, when practically considered, has but little to recommend it, either as a commercial convenience or a financial success, we are brought to the consideration of the Nicaragua route, as that to which the attention of the American public is most strongly drawn at this time. The advantages of this route are: the ease and economy with which the canal can be constructed; the admirable approaches to it from the sea, both east and west; the distance saved between Liverpool and the North American ports over that of the Panama route; and the distance saved, also, between New York and other Atlantic cities and the ports of the United States on the Pacific. The cost of the Nicaragua Canal has never been estimated above \$100,000,000; indeed, Civil Engineer Menocal, whose judgment and capacity have never been questioned, gives the following as his estimate of the entire cost of the work, after long and critical examination:

Western Division—from Port Brito to the Lake.	Distance,	
16.33 miles; estimated cost.....		\$21,680,777.00
Middle Division—Lake Nicaragua.	Distance, 56.50 miles;	
estimated cost.....		715,658.00
Eastern Division—from Lake to Greytown.	Distance,	
108.43 miles; estimated cost.....		25,020,914.00
Construction of Greytown Harbor.....		2,822,630.00
“ Brito “		2,337,739.00
Total. Distance, 181.26 miles; cost.....		\$52,577,718.00

A subsequent estimate, based on more recent surveys made by Mr. Menocal, has reduced this amount to \$41,193,839—a reduction of \$11,383,879; and by abandoning the valley of the San Juan River in favor of a direct route to Greytown,—ascertained to be entirely practicable,—the distance is reduced to 173.57 miles, the total canalization being but 53.17 miles.

It is well known that the Suez Canal, and, in fact, almost all great public works, cost far more than the estimates made by engineers. But applying this rule most liberally cannot bring the outlay on the Nicaragua route above \$100,000,000. The surveys of this route, made subsequent to those of the other routes

proposed, have developed extraordinary facilities for the work. Materials needed for construction are abundant throughout the entire line. The harbors of Brito and Greytown, at the western and eastern termini, are capable of being easily made convenient and excellent. The water supply from Lake Nicaragua is free from deposit and is abundant and easily obtained—the lake itself being the summit level of the canal. The rain-fall is not excessive. The climate during the trade winds is delightful. The country is capable of producing all the subsistence that would be required by the laborers employed in the construction of the canal. The local productions are valuable, and such as constitute many of the most important articles of commerce. In the construction, feeders, tunnels, and viaducts are not necessary. Dependent nowhere on streams which in the rainy season are irresistibly destructive, and in the dry season are reduced to mere rivulets, the canal would always be provided with a uniform and easily controlled supply of water.

A canal constructed on this route, and at the estimates before us, could not fail to be an economical highway as well as a profitable investment. Estimating the cost of the canal at \$75,000,000, a charge of \$2.50, for canal tolls and all other charges, would give a gross income of \$10,000,000 on the 4,000,000 tons upon which former calculations have been based. Deducting from this \$1,500,000 for the expenses of maintaining and operating the canal, we have \$8,500,000 as the net earnings of the work. Any reasonable modification of these figures would give an encouraging exhibit. The liberal concessions made by the government of Nicaragua to the Provisional Inter-oceanic Canal Society indicate a determination on the part of that government to make the burthens of the enterprise as light as possible, and to leave its government entirely in the hands of the American projectors. While in the Panama concession provision is made for the entry and clearance of vessels at the terminal ports, with the delays and annoyances usually attending such requirements, the Nicaragua concession avoids all interference by custom-house officials, except so far as to prevent smuggling and violations of the customs laws. This concession provides: "There shall be a free zone upon each bank of the canal, of one hundred yards in width, measured from the water's edge, it being understood that the lake shores shall never be considered as the margin of the canal. Within this zone no illegal traffic shall be conducted, and the

customs authorities will watch and prevent smuggling in accordance with the provisions of Article 32 [of the concession]. It is expressly understood that every vessel traversing the canal will, whenever the authorities desire it, receive on board a guard [customs officer] appointed by the government, who will, in case of discovering their violation, exercise his powers in accordance with the law." The articles of the concession also provide that the "two ports to be constructed and to serve for entrances to the canal on each ocean are declared to be free, and will be recognized as such from the beginning of the work to the end of this concession." While the administration and management of the Panama Canal, moreover, are placed in the hands of an independent company, deriving its powers from a foreign government, and organized on the plan adopted in the construction of the Suez Canal, the commerce availing itself of the benefits of the Nicaragua Canal is protected by the government of that country against all extortion. In Article 42, the concession provides that: "It is understood that the company, in the exercise of the powers here conferred, cannot make other regulations than such as are necessary for the administration and management of the canal, and before issuing these regulations will submit them to the government for its approval." In order to protect still further the interests of those using the canal, it is provided that all sums necessary to secure interest on the funded debts, obligations, and shares, not exceeding six per cent. for interest, and also a sinking fund, shall be reserved; and that "what remains shall form the net gains, of which at least eighty per cent. shall be divided amongst shareholders, it being understood, after ten years from the time the canal is completed, the company cannot divide amongst the shareholders, either by direct dividends, or indirectly, by issuing additional shares or otherwise, more than fifteen per cent. annually, or in this proportion, for dues collected from the canal; and when it is discovered that the charges in force produce a greater net gain, they will be reduced to the basis of fifteen per cent. per year." These provisions indicate not only the confidence of the projectors in their enterprise, but also the determination of the Nicaraguan government to guard against all possible injustice to the commerce finding a highway there.

That there are other advantages contained in the concession of the Nicaraguan government, and in the proposed administration and management of the Nicaragua Canal, there should be no

doubt in the mind of every American who believes in the power and supremacy of his government on this continent. The concession is made to Americans, the society is made up of Americans, the corporators are Americans, and the act of incorporation is asked of an American Congress. Every step of this project recognizes the right of the United States to guard with jealous care the American continent against the encroachment of foreign powers. To this policy no nation and no cluster of adjacent nations, watchful of their own individual or collective interests, should take exception. It is the foundation of national existence everywhere. An American man-of-war, having on board the greatest naval commander of modern times, pauses for forty-eight hours at the mouth of the Bosphorus to recognize the right of an European power to control the waters of the Dardanelles and the Black Sea. It cannot be supposed for a moment that an American company, incorporated by the American government, organized on American soil, would have been allowed to construct the Suez Canal, even if it had established a branch of its enterprise in France and placed it under the supervision of a distinguished and representative French official. And so it is with us. The policy laid down in the early days of the Republic, and accepted from that time to this by the American mind, by which the colonization of other nationalities on these shores was protested against, should never be forgotten. The violation of this policy has always roused the American people to a firm assertion of their rights, and cost one American statesman, at least, a large share of the laurels he had won by long and honorable service. The application of this principle even now secures safety and protection to a line of railway spanning the Isthmus, and connecting the eastern with the western waters. The assertion of this principle by a treaty made with Nicaragua in 1849 is accepted to-day by all Americans, people and officials, with entire satisfaction. The rejection of that treaty in order to prevent a collision between the United States and Great Britain, and to preserve unharmed the policy of an administration, is regarded as one of the most complicating and compromising acts of American diplomacy. The accepted and acceptable policy of the American government is contained in the doctrine announced more than half a century ago by President Monroe. It is to be found in the attitude assumed by our government in all the long diplomatic discussion which followed the ratification of the

Clayton-Bulwer treaty;—a discussion in which General Cass, then Secretary of State, declared an analogous treaty as recognizing “principles of foreign intervention repugnant to the policy of the United States”;—a discussion in which by negotiation Great Britain was compelled to recognize the “sovereignty of Honduras over the islands composing the so-called British Colony of the Bay Islands”;—a discussion in which the President of the United States “denounced the Clayton-Bulwer treaty as one which had been fraught with misunderstanding and mischief from the beginning.” “If the Senate,” said the President to Lord Napier, “had imagined that the Clayton-Bulwer treaty could obtain the interpretation placed upon it by Great Britain, it would not have passed; and if I had been in the Senate at the time, it never would have passed.” It is in obedience to this policy that the United States has protested against the establishment by Great Britain of a protectorate in Central America, either on the Mosquito coast or on the Bay Islands. And it is in accordance with this policy that President Hayes, in his message of March 8th, 1880, declared that:

“The policy of this country is a canal under American control. The United States cannot consent to the surrender of this control to any European power or to any combination of European powers. . . . The capital invested by corporations or citizens of other countries in such an enterprise must in a great degree look for protection to one or more of the great powers of the world. No European power can intervene for such protection without adopting measures on this continent which the United States would deem wholly inadmissible. If the protection of the United States is relied upon, the United States must exercise such control as will enable this country to protect its national interests and maintain the rights of those whose private capital is embarked in the work.

“An interoceanic canal across the American isthmus will essentially change the geographical relations between the Atlantic and Pacific coasts of the United States, and between the United States and the rest of the world. It will be the great ocean thoroughfare between our Atlantic and our Pacific shores, and virtually a part of the coast-line of the United States. Our merely commercial interest in it is greater than that of all other countries, while its relations to our power and prosperity as a nation, to our means of defense, our unity, peace, and safety, are matters of paramount concern to the people of the United States. No other great power would, under similar circumstances, fail to assert a rightful control over a work so closely and vitally affecting its interest and welfare.”

In accordance with the early and later policy of the government, in obedience to the often-expressed will of the American

people, with a due regard to our national dignity and power, with a watchful care for the safety and prosperity of our interests and industries on this continent, and with a determination to guard against even the first approach of rival powers, whether friendly or hostile, on these shores, I commend an American canal, on American soil, to the American people, and congratulate myself on the fact that the most careful explorations have demonstrated that the route standing in this attitude before the world is the one which commends itself as a judicious, economical, and prosperous work.

I have formed the opinions expressed in this article, not from a hasty consideration of the subject, and not without personal observation. While commanding the army of the United States, my attention was drawn to the importance of the water communication I have here discussed. During my administration of the government, I endeavored to impress upon the country the views I then formed ; and I shall feel that I have added one more act of my life to those I have already recorded, if I shall succeed in impressing upon Congress and the people the high value, as a commercial and industrial enterprise, of this great work, which, if not accomplished by Americans, will undoubtedly be accomplished by some one of our rivals in power and influence.

U. S. GRANT.